IN THE CLAIMS

1. (Original) A method of equalizing an input signal received from a communications channel, comprising the steps of:

generating at least one sampling from the received input signal based on a clock signal unrelated to a clock signal used to recover data associated with the received input signal; and

compensating for distortion associated with the communications channel based on at least a portion of the at least one generated sampling.

2. (Original) The method of claim 1, wherein the sampling generation step further comprises the steps of:

generating multiple phases of the sampling clock signal; and

sampling the received input signal at the respective multiple phases of the sampling clock signal to generate respective multiple samples.

3. (Original) The method of claim 1, wherein the distortion compensating step further comprises the steps of:

setting one or more parameter values based on the at least a portion of the at least one generated sampling; and

applying the one or more parameter values to the received input signal.

4. (Original) The method of claim 1, wherein the sampling clock signal has a lower frequency than the data recovery clock signal.

5. (Original) The method of claim 1, wherein the sampling generation step further comprises the step of validating the at least one generated sampling.

6. (Currently Amended) The method of claim 5, wherein the validating step further comprises comparing samples of the at least one generated sampling to a validation threshold.

7. (Original) The method of claim 5, wherein the validating step further comprises the steps of:

generating leading edge samples and trailing edge samples from the received input signal; and

varying an eye center threshold to determine the validity of the at least one generated sampling.

8. (Original) The method of claim 5, wherein the validating step further comprises discarding samples of the at least one generated sampling that are determined to be invalid.

9. (Original) The method of claim 1, wherein the communications channel is a digital communications channel.

10. (Original) The method of claim 1, wherein the equalization is performed in accordance with a data receiver coupled to the communications channel.

11. (Original) Apparatus for equalizing an input signal received from a communications channel, comprising:

a memory; and

at least one processor coupled to the memory and operative to: (i) generate at least one sampling from the received input signal based on a clock signal unrelated to a clock signal used to recover data associated with the received input signal; and (ii) compensate for distortion associated with the communications channel based on at least a portion of the at least one generated sampling.

12. (Original) The apparatus of claim 11, wherein the sampling generation operation further comprises generating multiple phases of the sampling clock signal, and sampling the received input signal at the respective multiple phases of the sampling clock signal to generate respective multiple samples.

13. (Original) The apparatus of claim 11, wherein the distortion compensating operation further comprises setting one or more parameter values based on the at least a portion of the at least one generated sampling, and applying the one or more parameter values to the received input signal.

14. (Original) The apparatus of claim 11, wherein the sampling clock signal has a lower frequency than the data recovery clock signal.

15. (Original) The apparatus of claim 11, wherein the sampling generation operation further comprises validating the at least one generated sampling.

16. (Currently Amended) The apparatus of claim 15, wherein the validating operation further comprises comparing samples of the at least one generated sampling to a validation threshold.

17. (Original) The apparatus of claim 15, wherein the validating operation further comprises generating leading edge samples and trailing edge samples from the received input signal, and varying an eye center threshold to determine the validity of the at least one generated sampling.

18. (Original) The apparatus of claim 15, wherein the validating operation further comprises discarding samples of the at least one generated sampling that are determined to be invalid.

19. (Original) The apparatus of claim 11, wherein the communications channel is a digital communications channel.

20. (Original) The apparatus of claim 11, wherein the equalization apparatus is associated with a data receiver coupled to the communications channel.

21. (Original) An equalization system responsive to an input signal received from a communications channel, comprising:

a sampling module, the sampling module generating at least one sampling from the received input signal based on a clock signal unrelated to a clock signal used to recover data associated with the received input signal; and

a filter, the filter compensating for distortion associated with the communications channel based on an equalization algorithm which is responsive to at least a portion of the at least one sampling generated by the sampling module.

22. (Original) The equalization system of claim 21, wherein the equalization system is part of a data receiver.

23. (Original) The equalization system of claim 22, wherein the equalization system is independent of a clock and data recovery system of the data receiver.